



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,900	05/05/2005	Tadao Nakagawa	050070-0101	8010
20277	7590	03/22/2006	EXAMINER	
MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			SHAH, SAMIR M	
		ART UNIT	PAPER NUMBER	
			2856	

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/533,900	NAKAGAWA ET AL. <i>[Signature]</i>
<b>Examiner</b>	<b>Art Unit</b>	
Samir M. Shah	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1)  Responsive to communication(s) filed on 31 October 2005.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4)  Claim(s) \_\_\_\_\_ is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) 1-3 is/are allowed.

6)  Claim(s) \_\_\_\_\_ is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 05 May 2005 is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/5/2005.  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date.       .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other:       .

***Quayle***

1. This application is in condition for allowance except for the following formal matters:

***Specification***

2. The disclosure is objected to because of the following informalities:
3. Appropriately change all instances of "slide 5" to -- fixed electrodes 5 -- (e.g. page 3, line 19 and 21) because the element denoted by reference number (5) is not being slid and hence the term "slide" for (5) is misleading; appropriately change all instances of "connecting portion 8" to -- connecting portions 8a, 8b -- (e.g. page 3, line 21); appropriately change all instances of "terminal 9" to -- terminals 9 -- (e.g. page 3, line 22); and appropriately change all instances of "resistance 7" to -- first resistance 7 -- (e.g. page 3, line 20).

Note that a different instance of "slide 5" such as, "the first slide 5", on page 6, line 9, should be appropriately changed to -- fixed electrodes 5 --. Similarly, appropriate changes for all different instances of "connecting portion 8", "terminal 9" and "resistance 7" should be made as suggested above.

4. On page 3, lines 19-20, delete "a slide 5 slidingly moved at the movable contact" and replace it with -- fixed electrodes 5 slidingly contacted by the movable contact --.
5. These changes are suggested to overcome 112 (1<sup>st</sup>/2<sup>nd</sup>).

Appropriate correction is required.

***Claim Objections***

6. Claims 1 and 2 are objected to because of the following informalities:

7. As to claim 1, delete "slides slidingly moved at the movable contacts" and replace it with -- fixed electrodes slidingly contacted by the movable contact -- (3<sup>rd</sup> line of the claim); delete "slide" and replace it with -- fixed electrodes -- (4<sup>th</sup> line of the claim); and delete "slide" and replace it with -- fixed electrodes -- (7<sup>th</sup> line of the claim).

8. Further in claim 1, change "resistance" to -- first resistance -- (4<sup>th</sup> line of the claim).

9. As to claim 2, delete "previously described resistance" and replace it with -- first resistance -- (last 2 lines of the claim).

Appropriate correction is required.

10. Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

11. A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

***Reasons for Allowance***

12. Claims 1-3 are allowed.

13. The following is an examiner's statement of reasons for allowance:

14. Regarding claim 1, Yasuda et al. (US Patent 6,571,627 B2 henceforth "Yasuda") discloses a slide detector including movable contact/contact member (62) displaced in accordance with the fluctuation of a liquid/fuel (12) level (column 2, lines 40-42), fixed electrodes/plurality of electrodes (50) slidingly contacted by the movable contact/contact member (62) on a circuit/electrical insulating board (30) (column 2, lines 20-30), resistance/resistive layer (40) connected to the fixed electrodes/plurality of electrodes, a

resistance value of the resistance/resistive layer which varies when the movable contact/contact member is slidingly moved on the fixed electrodes/plurality of electrodes (column 3, lines 1-13).

Yasuda fails to disclose "connecting portions which terminals contact" or "a resistance value...being outputted from the terminals via the connecting portions" or "second resistances".

15. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 2,767,264 to William M. Scott, Jr.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samir M. Shah whose telephone number is (571) 272-2671. The examiner can normally be reached on Monday-Friday 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Saul Shoh*  
SMS

*Hezron S. Williams*  
HEZRON WILLIAMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800